

Q-PAC

WIRING GUIDE

MULTIMOTOR PLENUM FAN

This Wiring Guide is for connecting the Q-PAC Fan to a 3rd party panel or other interface. For support connecting to a Q-PAC Control Panel or Disconnect, refer to the appropriate Q-PAC Wiring Guide or contact Q-PAC Support for assistance at (904) 863-5300 or support@q-pac.com.

For more information on Modbus communication points and Fan Controller functionality, check the Q-PAC Fan User Manual. Basic descriptions of the fan terminals are provided below.

INPUT POWER ■ ■		REQUIRED
L1/L2/L3	3 Phase 208V or 480V input voltage for motors.	X
GND	Earth ground	X
CN1 ANALOG INTERFACE ■		
A1	0-10V signal proportional to motor speed.	X
COM	0V reference for A1.	X
K1A	Normally closed (unpowered) contact of the alarm relay. When the controller receives power, the contact opens to indicate the absence of an alarm. If a fault occurs the contact will close again.	
K1C	Common contact of the alarm relay. When a fault is present in the unit, this pin is connected to Alarm relay NC K1A and disconnected from Alarm relay NO K1B.	
K1B	Normally open (unpowered) contact of the alarm relay. When the controller receives power, this contact closes to indicate the absence of an alarm. If a fault occurs the contact will open again.	
A2	0-10V signal proportional to the calculated airflow.	
COM	0V reference for a A2.	
CN3 INPUT POWER – FAN CONTROLLER BOARD ■		
24V	24VDC/24VAC input voltage.	NOTE 2, 6
0V	0VDC ground / 24VAC power supply.	
CN5 MODBUS COMMUNICATIONS ■		
A	Communications port +.	
B	Communications port -.	NOTE 3, 6
COM	Communications port ground.	
CN6 MODBUS COMMUNICATIONS ■		
A	Communications port +.	
B	Communications port -.	NOTE 3, 6
COM	Communications port ground.	

NOTES:

1. Conductor size to be determined by NEC Article 310.15(B) and Table 310.16 and Q-PAC Fan MCA, as listed on the Fan Controller nameplate.
2. Minimum 24 AWG (CU) to CN1 and CN3.
3. Minimum 24 AWG (CU) Shielded Twisted Pair to CN5 and CN6, if used.
4. Component sizes and details adjusted for clarity. Actual components may vary with vendor availability and lead time.
5. All open-ended lines indicate wiring to external devices to be completed by others in the field.
6. CN3 provides power to the Fan Controller Board (microcontroller) and is only required if using the fan alarm relay (K1A-K1C), airflow signal voltage (A2), and/or Modbus Communication (CN5 and CN6)

DV 1.1

